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On the selection of the optimal mode of the wave stimulation in oil production

Marfin E., Abdrashitov A., Kravtsov Y.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The work dedicated to the problem mode selection of the wave stimulation to improve the efficiency of oil extraction. The method of combining with wave action by SAGD with two-wellheads reviewed. The process of formation of standing waves in the injection well and the energy propagation of elastic vibrations into a producing reservoir through the wall of the well is investigated. The existence range of the exposure frequency, at which there is minimal absorption of elastic waves, is set. It is shown that with increasing distance from the injection well a value optimum frequency shifts downwards. Obtained results may be the basis for selecting the optimal frequency wave stimulation.